

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A pTV2 or pCK vector comprising a nucleotide sequence encoding a truncated human Her-2/neu protein, said truncated human Her-2/neu protein is consisting of a transmembrane domain and extracellular domain, or an extracellular domain thereof lacking an intracellular domain.
2. (previously presented): The vector of claim 1, wherein the human Her-2/neu gene has the nucleotide sequence of SEQ ID NO: 2.
3. (currently amended): The vector of claim 2, wherein the pTV2 vector is pNeu_{TM} deposited at the Korean Culture Center of Microorganisms (KCCM) under the accession number which is pNeu_{TM} (KCCM-10393) or and the pCK vector is pCK_{TM} deposited under the accession number (KCCM-10396).
4. (withdrawn) The plasmid construct of claim 1, whrein the truncated human Her-2/neu gene further lacks the transmembrane domain.

5. (withdrawn) The plasmid construct of claim 4, wherein the human Her-2/neu gene has the nucleotide of SEQ ID NO: 3.
6. (withdrawn) The plasmid construct of claim 5, which is pNeu_{ECD} (KCCM-10394) or pCK_{ECD} (KCCM-10395).
7. (withdrawn) The plasmid construct of claim 1, wherein the signal peptide of the human Her-2/neu gene is replaced by the signal peptide of herpes simplex type I glycoprotein D (gD).
8. (withdrawn) The plasmid construct of claim 7, which is pNeu_{TM-gDs}.
9. (withdrawn) The plasmid construct of claim 4, wherein the signal peptide of the human Her-2/neu gene is replaced by the signal peptide of herpes simplex type I glycoprotein D (gD).
10. (withdrawn) The plasmid construct of claim 7, which is pNeu_{ECD-gDs}.
11. (previously presented): The vector of claim 1, which further comprises a nucleotide sequence encoding a cytokine.

12. (previously presented): The vector of claim 11, wherein the cytokine is granulocyte-macrophage colony-stimulating factor (GM-CSF).

13. (currently amended): A DNA vaccine composition comprising a pTV2 vector or pCK vector which comprises a nucleotide sequence encoding a truncated human Her-2/neu protein, said truncated human Her-2/neu protein ~~lacking an intracellular domain~~, is consisting of a transmembrane domain and extracellular domain, or an extracellular domain thereof.

14. (previously presented): The DNA vaccine composition of claim 13, which further comprises a plasmid which expresses a gene encoding a cytokine.

15. (previously presented): The DNA vaccine composition of claim 14, wherein the cytokine is GM-CSF.

16. (currently amended): A method for preventing ~~and/or~~ treating cancer, which comprises the step of administering a mammal in need of prevention or treatment of cancer with an effective amount of the DNA vaccine composition of claim 13.

17. (previously presented): The DNA vaccine composition of claim 13, wherein the pTV2 vector or pCK vector further comprises a nucleotide sequence encoding a cytokine.

18. (previously presented): The DNA vaccine composition of claim 17, wherein the cytokine is GM-CSF.

19. (new): A method of inducing antitumor immunity, which method comprises the step of intramuscular administration of an effective amount of the DNA vaccine composition of claim 13 to a subject suffering from Her-2/neu-over-expressing human cancers.

20. (new): The method of claim 19, wherein said immunity is exhibited by Her-2/neu-specific antibody or CTL response to Her-2/neu.

21. (new): The method of claim 19, wherein said cancer is breast cancer or ovary cancer.

22. (new): A method of reducing tumor growth, which method comprises the step of intramuscular administration of an effective amount of the DNA vaccine composition of claim 13 to a subject suffering from Her-2/neu-over-expressing human cancers.

23. (new): The method of claim 22, wherein said tumor is a solid tumor.

24. (new): A method of decreasing tumor metastasis, which method comprises the step of intramuscular administration of an effective amount of the DNA vaccine composition of claim 13 to a subject suffering from Her-2/neu-over-expressing human cancers.

25. (new): The method of claim 24, wherein said decreasing tumor metastasis is applied after tumor surgery.

26. (new): The method of claim 24, wherein said tumor is a solid tumor.

27. (new): A method of prolonging survival period, which method comprises the step of intramuscular administration of an effective amount of the DNA vaccine composition of claim 13 to a subject suffering from Her-2/neu-over-expressing human cancers.

28. (new): The method of claim 27, wherein said cancer is breast cancer or ovary cancer.